

**BANFF NATIONAL PARK DIRECTIVE  
PARKS CANADA - CANADIAN HERITAGE**

**DATE:** 17-MAR-88 as amended 03-JUN-98

**NUMBER: BNP-93/17**  
(originally BNP/32)

**SUBJECT:** Environmental Guidelines for Development Projects

**PURPOSE:**

To provide guidelines for development projects within Banff National Park (BNP), in order to protect natural and cultural resources by minimizing adverse environmental effects resulting from these projects.

**SCOPE:**

This directive will apply to all development which may impact the natural and cultural environments in BNP (including Banff Townsite), and/or development which may be affected by these environments. This directive will also apply to development which alters the function and appearance of existing structures.

**DEFINITION:**

***Project Manager*** - that person responsible for coordination and completion of a project.

***Banff Park Project Officer*** - appointed by the Superintendent as the coordinator for both park projects and private development projects within the park. This project officer will be the park contact person for a specific project.

**BACKGROUND:**

Parks Canada, through the Government of Canada and on behalf of the people of Canada, has been entrusted with the task of responsibly managing the land and resources within our national parks. Within BNP, Heritage Resource Conservation (HRC) has the responsibility for the management and protection of natural and cultural resources, and the promotion of the philosophy of environmental stewardship. Environmental stewardship is not only the special awareness of the importance and benefit of natural and cultural resources; it is also the incorporation of such awareness into all day to day activities and practices, such that impacts to these resources are minimized.

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*National Parks are special places.* Development projects within National Parks boundaries will require special attention. Individuals carrying out such projects will require a heightened awareness of environmental stewardship. While some projects will provide the needed services to the park resident and visitor; other projects, without care or consideration for the environment, may do serious harm.

For each project, the Canadian Environmental Assessment Act (C.E.A.A.) will be applied to the required level to identify concerns and provide mitigating measures. Further direction in the form of specific guidelines for development will be provided below to assist in ensuring environmentally sound practices on the development sites.

**POLICY:**

### **1. Project Coordination**

After project approval and contract awards, and prior to the start of development activities, a pre-construction meeting will be scheduled by the project manager and will include:

- the Superintendent or his delegate (major projects);
- the Park Project Manager;
- the Project Manager;
- the CEEA or Environmental Surveillance Officer;
- the monitoring Park Warden (where required);
- the Contractor;
- the Engineer (where required);
- other personnel who have concerns involving the project (ie: Archaeology, etc.).

Periodic on-site meetings with the Environmental Surveillance Officer (ESO) and the Project Manager may be required during the development phase to discuss environmental concerns. Outstanding problems or significant deviations from approved plans which cannot be resolved at the field level will be presented to the park Superintendent, or his delegate, for final decision.

**NOTE: A PARK WARDEN IS RESPONSIBLE FOR THE PROTECTION OF NATURAL AND CULTURAL RESOURCES WITHIN NATIONAL PARKS AND HAS AUTHORITY AS A PEACE OFFICER, TO ENFORCE THE NATIONAL PARKS ACT, ITS REGULATIONS AND RELATED GUIDELINES AND DIRECTIVES. A PARK WARDEN MAY STOP WORK AT ANY TIME, IF NECESSARY, TO PREVENT UNDUE ENVIRONMENTAL DAMAGE.**

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## 2. Specific Direction for Project Managers

For each project, specific instructions will be prepared by HRC for issue to the project manager. These will include environmental concerns and permit/license requirements. The following guidelines shall apply.

### GUIDELINES:

1. **Site Access** - Access to the work site should be identified in the contract documents, especially if access is going to be a problem, so that contractors can estimate costs in their bids. Access to the construction site will be clarified in detail at the initial pre-construction meeting. The contractor will ensure that:
  - 1.1. Only designated access routes are used.
  - 1.2. Vehicle parking is restricted to established roads or identified parking area(s).
  - 1.3. Load restrictions (when necessary) on access routes are implemented, to prevent damage to structures or road surfaces. Overweight permits may not be issued during certain periods of the year.
  - 1.4. Construction equipment is operated and parked only within the confines of the construction site. Construction site boundaries will be delineated by flagging or fencing materials and maintained throughout the duration of the project.
  - 1.5. Roads, sidewalks and other public accesses are maintained with minimal interference.
2. **Employee Briefing** - The contractor will conduct briefing sessions for all employees and sub-contractor employees and will cover the following topics:
  - 2.1. Care of the environment in the area where the work is being performed.
  - 2.2. Harassment or attraction of wildlife.
  - 2.3. Pollution and garbage management.
  - 2.4. Relevant Park Regulations, and the authority and responsibilities of the Park Warden.
  - 2.5. Relations between workers, tourists and residents.

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2.6 Specific vehicle access to the work site, and requirement for National Park Vehicle Entry Permits.

**3. Sanitary and Garbage Facilities**

3.1. The contractor shall be required to provide regularly serviced sanitary ( toilet ) facilities to adequately provide for the number of employees anticipated on-site.

3.2. All garbage must be stored and handled in conformance with the *National Park Garbage Regulations*.

3.3. The contractor shall be required to provide approved bear-proof storage for any edible garbage or food containers that may be disposed of on-site. No littering will be tolerated.

**4. Wildlife** - The contractor shall ensure that there is no harassment of wildlife as a result of his operation and that no action is permitted which will attract wildlife to the site. The contractor will notify HRC in BNP of wildlife encounters on or around the work site or crew accommodation, as soon as the problem arises or within 24 hours at the latest.

**5. Cultural Resources** - The contractor will immediately inform the ESO and/or the Project Manager of any items of historic interest or evidence of archaeological finds that are discovered on the development site ( ie: old garbage dump sites, cabin sites, etc. ). The ESO monitoring the project will inspect the site immediately and provide written direction to the Project Manager as to the method in which to proceed with the work after consultation with Alberta Regional Archaeologists. All historical and prehistorical finds must be protected and will remain the property of Parks Canada. (See also "12. Excavating".)

**6. Site Investigation and Surveys** - Any site investigation work involving disturbances to the natural environment requires prior approval from the Superintendent. Some site disturbance is necessary at the planning stage for most projects. The impacts of such disturbances will be minimized, especially if the disturbed area is likely to be outside the eventual construction site.

6.1 Wildfire Considerations (from "*Wildland-Urban Interface Forest Fire Potential and Fuel Reduction Plan for Banff Townsite and Surrounding Area*"). Within the past several decades, fire suppression has resulted in relatively few large fires in the park. During the same period, considerable development has taken place within the park. Not only have the communities of Banff and Lake Louise grown into the surrounding forest areas, but a number of recreational and service centres have been constructed throughout the forest. These structural values are now increasingly at risk from potential high intensity forest fires, and protection of people and property within the zone, referred to as the wildland-urban interface, is becoming more urgent.

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- 6.2 Site specific investigations and considerations should focus on an assessment of forest fuels build-up at the periphery of the development site. A number of factors are of concern for each specific location. These include:
- fuel type
  - slope
  - nature and position of threatened values
  - degree of safety to be attained by the fuel modification treatment
  - appearance, aesthetics of the treated area
  - economics of the project
  - capabilities of the organization to conduct the project.
- 6.3 An urban-wildland interface fire assessment that provides information concerning values at risk with respect to facility development in a forested environment is available from HRC in BNP.
7. **Site Preparation** - The area to be cleared will be delineated using biodegradable flagging tape. Prior to tree or vegetation removal, the site will be inspected by HRC to ensure compliance with Section 16(1)(2)(3) of the *National Parks Building Regulations* concerning preservation of trees and vegetation in general. Trees are to be cut so that they fall inside the cleared perimeters. Tree removal will be detailed on approved site plan or landscaping plan.
8. **Disposal of Trees**
- 8.1 Trees larger than 15 cm (DBH) shall be:
- cut into blocks not to exceed 35 cm. and stockpiled at a designated location for use as firewood; or if deemed necessary by the department;
  - marked, felled, and piled at a designated location for use as sawlogs.
- 8.2 Trees under 15 cm (DBH) and other woody materials such as stumps, tops, and limbs can be disposed of in the following manner:
- the materials may be processed by chipper and deposited at a designated site; or
  - depending on fire hazard and weather conditions, on-site burning may be permitted. A burning permit is required from HRC. As part of the conditions for granting a burning permit, the contractor may be required to provide the following:
- 8.2.1 For the period Nov.1 to April 14:
- slash pile must be surrounded by 10 meters of mineral soil;
  - slash pile must be a minimum of 20 meters from standing timber;
  - 24 hour supervision when fire is active; a smoldering fire may be left unguarded if above safeguards are met;
  - a front-end loader, cat and / or water truck must be readily available;
  - information of the maximum size of the fire and number of fires going at one time;
  - burning must be done on road right-of-way unless a cleared area has been given prior approval.

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8.2.2. In addition to the above, for the period of April 15 to October 31:

- fire weather index (FWI) readings must be less than 10. Note: under certain conditions and with special precautions, a fire permit may be issued when the FWI is greater than 10.

8.3. The following are the conditions that may be imposed on the burning permit to minimize smoke pollution:

- a hot continuous hot fire produces minimum amounts of smoke; a continuous burning operation may be required to ensure minimum smoke pollution;
- the number of fires;
- burning permits may not be issued until upper level winds are forecast which will help dissipate the smoke.

**9. Construction Materials**

9.1 Materials Storage - Construction material shall normally be stored within the confines of the development site. Under no circumstances may construction materials be stockpiled in the trees along the perimeter of the site or upon any area designated for protection within the site. Off-site storage of materials in undisturbed areas may be allowed only if permission is obtained from the lessee of the land involved in concurrence with HRC, or in another location designated by the ESO assigned to the project.

9.2 Trade Waste - Trade waste (construction waste) materials will be disposed of at the designated trade waste area only. The designated Trade Waste area for Banff National Park is the Castle Junction Tradewaste Site. This facility is located on Highway # 93 South, near Castle Junction, and is administered by the Town of Banff, as an Alberta Class III, Industrial landfill restricted to inert solid wastes only. A permit is required and can be obtained from the Town of Banff Administration Office between 0900 and 1630 hrs., Monday through Friday.

9.3 No food, domestic garbage, recyclable materials, or hazardous wastes may be deposited in the trade waste area.

**NOTE:** *National Park Garbage Regulations* Sec.6(1): "No person shall convey or cause to be conveyed any garbage in a vehicle that is not properly constructed and covered so as to prevent the contents thereof from escaping".

**10. Soil Materials**

10.1 Clean Fill - Clean fill (stripping or excavated materials) will be deposited in an area designated for this purpose, and in accordance with Banff National Park Directive # 22, "*Guidelines for Management of Excavated Materials*".

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- 10.2 Stripping - The topsoil layer in the BNP area is frequently very thin. Successful site rehabilitation depends on either careful saving of the limited topsoil resource, or undertaking the expensive alternative of hauling topsoil from outside the Park.
- Measures required to conserve the valuable topsoil resource must be identified. This may include stockpiling on-site for immediate rehabilitation, or disposal at an area designated by the Superintendent.
  - Care must be taken during both grubbing and stripping operations to ensure that the trees and roots on the edge of the clearing limits are not disturbed or damaged. This phase will be closely monitored by HRC.
  - In some instances where steep backslopes are involved, grubbing and stripping may not be permitted. Stumps would be cut flush with the ground, and the ground cover left undisturbed to promote slope stability. This will be determined by an on-site inspection by the ESO.
  - Material encountered below the topsoil layer, which is not suitable for construction purposes may be disposed of at designated locations in accordance with Park Directive # 22, "*Guidelines for Management of Excavated Materials*". Arrangements to dispose of the surplus material must be made with the ESO responsible for monitoring the project.
  - Depending on the type and volume of material encountered, special conditions may be imposed regarding compaction and rehabilitation at the disposal area.
- 10.3 Contaminated Soil - The issue of contaminated soils and disposal practices will normally be identified through CEAA. However, where past and present land use practices have led to soil contamination, certain actions will be required. These include:
- Soil testing at the expense of the proponent. Level of contamination will be in accordance with the Canadian Council of Ministers of the Environment guidelines, and acceptable levels will be decided by the park. Minimum acceptable standards for in-park soil contamination and remediation will be to the "Parkland" level.
  - Soil disposal at the expense of the proponent. All contaminated soils will be removed from the park. No treatment of contaminated soils ( ie. bio-remediation, land-farming, etc. ) will be allowed within the park. Disposal of contaminated soil material will be at provincially certified disposal sites. Written proof of disposal of contaminated soils will be required.

**11. Control of Toxic/Hazardous Materials, Fuels.**

- 11.1 Toxic/Hazardous Materials - All toxic/hazardous materials will be stored and used in accordance with relevant federal and provincial legislation pertaining to these materials. Spill contingency plans and equipment will be on-site, and employees will be aware of such emergency procedures as required. The ESO will be made immediately aware of any and all spills of toxic or hazardous materials. All hazardous wastes will be disposed outside BNP. This material will be disposed of in conformance with all relevant Federal and Provincial legislation and regulations pertaining to the transport and disposition of hazardous wastes.

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11.2 **Fuels** Permits for on-site storage of fuel or other inflammable liquids must be obtained from the ESO monitoring the project. Depending on the volume and location of the storage site, the following conditions may apply.

- Fuel storage and refuelling areas will be designated.
- The designated storage area will be bermed to enclose 125 % of anticipated storage tank volume. The bermed storage area will be underlain with an impermeable liner. All contaminated rainwater, contained within the berm, will be collected and removed from the park. Other special protection measures may be required to prevent mechanical damage of the tank.
- All soil material contaminated during refuelling operations will be collected and disposed of outside BNP at an appropriate facility. Written verification of such disposal will be provided to the ESO.
- Spill contingency plans will be developed and appropriate equipment to implement such plans will be in place, in the event of accidental spillage or tank malfunction. Fire protection equipment will be available on-site. The ESO will be made immediately aware of any spills.

12. **Excavating** - Disposal of surplus excavation material shall be handled in a similar manner to the disposal of surplus stripping material.

- It is extremely important in all excavations to ensure that excavated material is not permitted to sluff into the surrounding tree cover, or to bury any plant material that is to be retained. Trees and shrubs on the perimeter of the site can be severely damaged by burial or damage involved in retrieving this material at a later date.
- Rocks rolling down steep slopes during excavation or dumping of fill material can severely damage vegetation below. Special attention by equipment operators and extensive downslope protection work may be required.
- Careful equipment operation is required to ensure that mechanical damage to trees and surrounding vegetation does not occur. If damage does occur, an approved horticultural sealant will be applied to the tree damage as soon as possible.
- All equipment operators should be instructed that the operation of construction equipment off-site is not permitted. This applies both to the perimeter of the site, and to any areas within the site that are protected in a natural state.
- Alberta Region archaeologists must be informed of any projects in the park that require excavation. This will be scheduled at the preliminary/design phase of the project. Archaeological/Historical concerns will be cleared by Alberta Region Archaeological Division prior to initiation of excavation.
- Material sources, material storage areas and width of excavation ditches will be identified and recognized as part of the cost estimate of the project ( trucking requirements, etc. ).
- All open excavations will be signed and fenced appropriately in order to minimize hazards to both the general public and to wildlife.



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- 13. Foundation and Concrete Work** - Indiscriminate disposal of concrete or concrete residues around the site perimeter is not permitted. A concrete truck cleanout area will be identified for each project. Concrete residues will be disposed of at the Castle Junction Trade Waste Pit, or outside the Park at the proponents expense.
- 14. Pollution of Rivers or Streams**
- 14.1 No rock, silt, cement, grout, asphalt, petroleum product, lumber, vegetation, domestic waste, or any deleterious substance shall be placed or allowed to disperse into any stream, river, pond, storm or sanitary sewer, or other water course.
- 14.2 All fuels, oils, lubricants and other petrochemical products will not be stored within 100 meters of any waterbody (including wetlands).
- 14.3 The crossing of any waterbody (including wetlands) by construction equipment, or the use of such equipment within waterbodies is strictly prohibited unless prior approval has been confirmed through CEAA.
- 14.4 Only approved chemically treated wood will be allowed near water courses. Sawdust and wood scraps will not be allowed to enter waterbodies.
- 14.5 Erosion control measures will be implemented on all development sites in order to ensure that off-site run-off is minimized and sediments contained within site perimeters. All pumping of water will be subject to approval of the ESO.
- 14.6 Site rehabilitation will be an urgent priority. For construction areas adjacent to watercourses, special protection and / or reclamation measures may be required.
- 14.7 River or streambeds will not be used for borrow materials
- 14.8 Excavated fill or debris will not be dumped into waterways.
- 15. Pollution Control**
- 15.1 Equipment and generator plants will operate in accordance with the Alberta Clean Air Act, and Federal Environmental Protection Service emission control regulations/guidelines.
- 15.2 Work schedules and equipment use may be controlled to prevent excessive noise and disturbance to park visitors. Any such control measures should be specified in the contract documents.

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- 15.3 Materials and work site areas will be wetted down as necessary, to prevent blowing dust and debris. Measures will be taken to contain and control and collect windblown debris.
- 15.4 All hazardous and potentially toxic materials used in development projects will be securely stored in a responsible manner during development activities.

**16. Site Rehabilitation**

- 16.1 Site rehabilitation will receive the highest level of attention. A well conceived landscape plan that identifies rehabilitation goals and identifies physical limitations (ie. water, soil nutrients, suitable species, etc.) to rehabilitation success, will not only serve the best interest of the national park, but also result in the least cost approach in the long term.
- 16.2 Any deviation from the park approved landscape plan will require permission from the Superintendent.
- 16.3 All survey stakes, flagging tape, etc. is to be removed at the conclusion of the project.
- 16.4 The Project Manager will inspect the construction site for the following:
- a thorough site cleanup including general litter.
  - any required topsoil is clean and weed free. Sources of topsoil introduced into the park will be approved by the project manager before being allowed into the park. The proponent will ensure numbers and species of approved plant material as per the landscape plan.
  - the application of appropriate types and amounts of fertilizers

**17. Blasting** (see Park Directive #14 "*Control of Explosives*")

- 17.1 All blasting must conform with existing regulations and be accomplished under the supervision of a licensed blaster.
- 17.2 No blasting will be allowed under water or within 100 meters of spawning beds.
- 17.3 Storage of explosives will be subject to National Parks Regulations.
- 17.4 Fly rock shall not be permitted to damage surrounding vegetation. Use of blasting mats may be required.

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18. Development in Backcountry Areas - Special conditions apply to development in backcountry areas. The more sensitive nature of backcountry wilderness areas and the high value placed upon wilderness experience by park visitors, will often necessitate more rigorous standards for approved development projects. (See Park Directives #19 "*Redevelopment of Commercial Backcountry Lodges*" and #20 "*Redevelopment of Existing Alpine Huts and Backcountry Shelters*").

(original signed by) \_\_\_\_\_

C. Zinkan

Superintendent

Banff National Park